

REMARKS

Applicants thank the Examiner for the thorough examination given the present application.

Status of the Claims

Claims 28-67 will be pending in the above-identified application upon entry of the present amendment. Claims 3-9, 12-13, and 15-27 are cancelled herein. Support for new claim 28 can be found in claims 15, 19, and 23. Support for new claims 29-35 can be found in claims 3-9, respectively. Support for new claims 36-37 can be found in claims 12-13, respectively. Support for new claims 38-44 can be found in claims 16-22, respectively. Support for new claims 45-48 can be found in claims 24-27, respectively. Support for new claims 49 and 66 can be found in claims 3 and 7. Support for new claim 50 can be found in claims 15 and 23 as well as in the present specification, *inter alia*, at page 2, lines 14-17. Support for new claims 51 and 67 can be found in claim 9. Support for new claim 52 can be found in claim 23. Support for new claims 53-59 can be found in claims 3-9, respectively. Support for new claims 60-61 can be found in claims 12-13, respectively. Support for new claims 62-65 can be found in claims 24-27, respectively. Thus, no new matter has been added. Based upon the above considerations, entry of the present amendment is respectfully requested.

In view of the following remarks, Applicants respectfully request that the Examiner withdraw all rejections and allow the currently pending claims.

Issues under 35 U.S.C. § 103(a)

1) Claims 22-27, 3-9, 12-13, 15-17, and 20-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over McIntosh, Jr. et al. '209 (US 4,908,209) and Ohnishi et al. '508 (US 6,524,508).

2) Claim 18 is rejected under 35 U.S.C. § 103(a) as being unpatentable over McIntosh, Jr. et al. '209 and Ohnishi et al. '508 in view of Phan et al. '339 (US 5,039,339).

3) Claim 19 is rejected under 35 U.S.C. § 103(a) as being unpatentable over McIntosh, Jr. et al. '209 and Ohnishi et al. '508 in view of Widra '629 (US 4,570,629).

Applicants respectfully traverse, and reconsideration and withdrawal of these rejections are respectfully requested.

Legal Standard for Determining Prima Facie Obviousness

MPEP 2141 sets forth the guidelines in determining obviousness. First, the Examiner has to take into account the factual inquiries set forth in *Graham v. John Deere*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), which has provided the controlling framework for an obviousness analysis. The four *Graham* factors are:

- (a) determining the scope and content of the prior art;
- (b) ascertaining the differences between the prior art and the claims in issue;
- (c) resolving the level of ordinary skill in the pertinent art; and
- (d) evaluating any evidence of secondary considerations.

Graham v. John Deere, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966).

Second, the Examiner has to provide some rationale for determining obviousness. MPEP 2143 sets forth some rationales that were established in the recent decision of *KSR International Co. v Teleflex Inc.*, 82 USPQ2d 1385 (U.S. 2007).

As the MPEP directs, all claim limitations must be considered in view of the cited prior art in order to establish a *prima facie* case of obviousness. *See* MPEP 2143.03.

The Present Invention and its Advantages

As discussed on page 1 of the present specification, information carriers are very commonly handled information, and as such, they are vehicles for illness contamination.

The present invention provides an information carrier and a process for producing an information carrier such as a banknote, a passport, a playing card, a chipcard, a packaging, a book, or a magazine with a bactericidal (or bacteriostatic) agent and a fungicidal (or fungistatic) agent in order to prevent epidemic or pandemic illnesses. Today, with the incidence of flu increasing, such prevention is essential for frequently used information carriers. This issue was not considered previously.

Advantageously, the combination according to the present invention of an agent having a bactericidal action with another agent having a fungicidal action has proven to be very effective as described in Examples 15-20 and illustrated in Table 2 of the present specification. These combinations are particularly effective in terms of preventing bactericidal and fungicidal development when compared to the use of only one biocidal agent having both bactericidal and fungicidal action. Moreover, the range of bacteria and fungi for which development has been stopped is also increased.

Distinctions over the Cited References

Ohnishi et al. '508 disclose a method for applying chitosan on acrylic fibers (col. 6, lines 48-51 and col. 17, lines 36-48). Ohnishi et al. '508 fail to disclose applying chitosan on the cloth itself. As such, one of ordinary skill in the art relying on Ohnishi et al. '508 would apply chitosan on cellulosic fibers rather than on an already made information carrier.

Moreover, in Ohnishi et al. '508, the fiber itself is immersed in a bath/solution of chitosan and quaternary ammonium salt (col. 8, lines 45-53) and dried thereafter. This process could not be used for an information carrier made of fibers such as a banknote because fibers in papermaking pulp are very diluted and the biocide agent would have a very low efficiency. Moreover, the whole papermaking process is based on drying the paper in formation by squeezing out the water, which means that most of the biocidal agents would be removed by applying Ohnishi et al. '508.

In addition, independent claim 28 incorporates some of the subject matter of claim 19, which was not included in the first two rejections. The Examiner relies on Widra '629 to disclose this element.

Widra '629 discloses a hydrogel membrane of a wound dressing containing plasticizers (col. 2, line 60 to col. 3, line 18). Wound dressings belong to a technical field which is far from cloths, and one of ordinary skill in the art would have no reason, rationale, or motivation to consider combining the hydrogel of Widra '629 with yarn for cloths as taught by Ohnishi et al. '508.

Additionally, Widra '629 teaches the use of polyelectrolytes such as chitosan (col. 5, lines 48-68) to form the hydrogel membrane, which is water-soluble (col. 2, line 63). Such a hydrogel would dry in contact with air and become a powder or dust, which is absolutely not adapted for an information carrier intended to be handled relatively frequently as claimed by the present invention. Furthermore, an information carrier provided with this water soluble hydrogel could not be handled frequently since any exposure to water would make the biocide disappear by dilution.

As discussed above, Ohnishi et al. '508 do not disclose each and every aspect of claims 28 and 52, from which all other pending claims ultimately depend. Applicants respectfully submit that McIntosh, Jr. et al. '209, Phan et al. '339, and Widra '629 do not overcome the deficiencies of this reference.

Regarding claims 46-48 and 63-65, the Examiner asserts that it would have been obvious to have substituted any fungicidal agents with a reasonable expectation of success (page 3 of the outstanding Office Action). Applicants respectfully traverse this assertion. Claims 46-48 and 63-65 correspond to inventive examples 17, 15, and 19, respectively, of the present specification. As shown in the present specification, these examples provide unexpectedly superior results. Specifically, fungistatic tests after 14 days showed almost no more fungi, and bacteriostatic tests after 24 hours showed almost no more bacteria.

To establish a *prima facie* case of obviousness of a claimed invention, all of the claim limitations must be disclosed by the cited references. As discussed above, McIntosh, Jr. et al. '209 and Ohnishi et al. '508, with or without the other cited references, fail to disclose all of the claim limitations of independent claims 28, 50, and 52, and those claims dependent thereon. Accordingly, the combination of references does not render the present invention obvious.

Furthermore, the cited references or the knowledge in the art provide no reason or rationale that would allow one of ordinary skill in the art to arrive at the present invention as claimed. Therefore, a *prima facie* case of obviousness has not been established, and withdrawal of the outstanding rejections is respectfully requested. Any contentions of the USPTO to the contrary must be reconsidered at present.

CONCLUSION

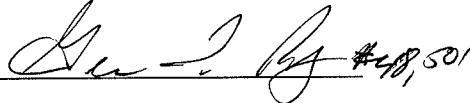
A full and complete response has been made to all issues as cited in the Office Action. Applicants have taken substantial steps in efforts to advance prosecution of the present application. Thus, Applicants respectfully request that a timely Notice of Allowance issue for the present case clearly indicating that each of claims 28-67 are allowed and patentable under the provisions of title 35 of the United States Code.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Chad M. Rink, Reg. No. 58,258 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

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